with a result he can not verify, has somewhat the function in his education of the puzzle in our society amusements or the game of sliced animals in the nursery.

J. Mark Baldwin.

Princeton.

THE WORK AT THE BIOLOGICAL LABORATORY OF THE U. S. FISH COMMISSION AT WOODS HOLL.

Three months ago the United States Fish Commission announced that its Biological Laboratory would be reopened; that it would be equipped for investigation; that men of science would be welcome, and that every effort would be made to collect all needed material, and to furnish, within certain limits, all necessary instruments and apparatus for research. The Station is the most extensive plant for the study of marine life and practical fish-culture in the world. There are four buildings: The Hatchery, Laboratory and Aquarium; the Residence; the Shops and Store House; and the Power House. It is in possession of a small fleet of steam and sailing vessels, and by special enactment the officers are empowered to use, at their discretion, any means for the capture of fish or other marine organisms.

The Commission has refurnished the Biological Laboratory and added ten new rooms for research. It has equipped a laboratory for physiology. It has purchased a bacteriological outfit, and a creditable library of biology and fish-culture has been installed. Two steam launches and the schooner Grampus have been attached to the Station, several fine-mesh seines, trawls and tow-nets have been purchased, and a large fish-trap has been placed at a favorable locality.

From the day of the opening of the laboratory, April 1st, several tables have been continuously occupied, and, at the present time, the scientific force numbers twenty-four. Several have expressed the desire of extending their work during the autumn and winter months, and it is proposed to keep the laboratory open throughout the year.

The Commission does not attempt to instruct or to dictate as to what lines of research are to be pursued, how the work shall be carried on, or where the results shall be published. It is convinced that all lines of biological research are indirectly, if not also directly, helpful to its more immediately practical work, and it happens that fully one-half of the investigators are now busy with problems bearing directly upon the anatomy, embryology, physiology and pathology of fish. The large corps of collaborators has made it possible to secure definite data respecting the breeding habits of many marine forms. The floating-fauna has been systematically examined; valuable information has been gained respecting the larval life of the star-fish, the developmental stages of the clam, the rate of growth of the scallops, the causes of mortality of lobster fry, and the pathogenic bacteria infesting fish.

With the cooperation of the Marine Biological Laboratory, it is proposed to make a series of synchronous observations on the temperature and floating fauna of Vineyard Sound. The combined vessels of the two laboratories provide a sufficiently large fleet to make these observations of special interest. It is also proposed to resume again the deep-sea work begun by the Commission many years ago, though the temporary use of the Fish Hawk by the United States navy will prevent the work from being undertaken the present season.

H. C. Bumpus.

ZOOLOGICAL NOTES.

PUBLICATIONS OF THE AMERICAN MUSEUM OF NATURAL HISTORY.

The Report of the American Museum of Natural History, New York, for 1897, re-

cently issued, has for its frontispiece a view of the south front as it will appear when the work on the east and west wings, now in progress, is completed. This front will have a length of 700 feet and, great as it will be, the area covered is only about a third of that planned for the finished structure. This will afford room for growth for many years to come, without any crowding of the collections, and it is small wonder that the American Museum, with its spacious exhibition halls, laboratories and offices, is at once the admiration and envy of other institutions.

Other illustrations in this report are views of collecting parties at work in Nebraska, and some of the mounted specimens in the paleontological hall. Although the Department of Vertebrate Paleontology has been organized but seven years, this hall already contains what is probably the most impressive exhibit of fossil vertebrates in the world, and while the beauty of Mr. Hermann's preparations can be readily appreciated by the average visitor the plylogenetic arrangement of the collections is of great interest to the student.

The American Museum has also issued an illustrated catalogue of casts, models, photographs and restorations of fossil vertebrates which are to be had in exchange or, in certain cases, are for sale. The statuettes of Mr. Knight are extremely good and show the great advance that has been made in our knowledge of extinct forms since Waterhouse Hawkins perpetrated his flights of fancy for the Crystal Palace. Of course, it may be said that he had little or no data on which to base his 'restorations,' but it would seem better, under the circumstances, not to have attempted them at all, on the ground that it is better 'not to know so much than know so many things that ain't so.' The most striking and vigorous of Mr. Knight's restorations is probably the one most open to criticism, but there are many who will hesitate to accept without reserve the form and attitudes ascribed to *Megalosaurus* (*Lælaps*) *aquilunguis*.

F. A. L.

CURRENT NOTES ON METEOROLOGY

THE CLIMATE OF THE PHILIPPINES.

THE climatic conditions of the Philippine Islands are just now attracting considerable attention, and brief notes, usually very general in character, concerning these conditions are finding their way into print. The 'Philippine Number' of the *National Geographic Magazine* (June) contains an article by F. F. Hilder (also published, substantially unchanged, in the *Forum* for July), two pages and a-half of which are devoted to the climate of the Philippine group of islands. The seasons at Manila are described by the Spaniards as

> "Seis meses de lodo,
> Seis meses de polvo,
> Seis meses de todo;"

six months of mud, six months of dust and six months of everything. Other brief notes are found in *Scribner's Magazine* for June, in an article on 'Manila and the Philippines,' by Isaac M. Elliott, formerly U. S. Consul at Manila, and in the *American Monthly Review of Reviews* for June, in an article by J. T. Mannix, entitled 'Notes on the Philippines.'

There is much confusion in the public mind just now as to the question of the health of North American troops during a temporary sojourn in the Philippines, and also as to the larger question of possible acclimatization of our people in those islands, in case of permanent occupation. No definite answers can be given to these two questions, but in their consideration three things may well be borne in mind. *First:* By means of a strict observance of hygienic principles, the death rate among foreigners in a tropical country can be very